



# White Sands Missile Range

## Consumer Confidence Report for Calendar Year 2002



For more information specific to White Sands  
Water Supply System contact:

White Sands Main Post  
Attn: WS-ES-EC  
Building 126  
WSMR, NM 88002  
Phone: 505-678-1007  
Fax: 505-678-1199

The following web sites provide valuable  
information concerning drinking water:

National Drinking Water Clearing House  
[www.nesc.wvu.edu/ndwc](http://www.nesc.wvu.edu/ndwc)

EPA Office of Ground Water and Drinking Water  
[www.epa.gov/safewater/](http://www.epa.gov/safewater/)

New Mexico Environment Department Drinking  
Water Bureau  
[www.nmenv.state.nm.us/dwb/dwbtop.html](http://www.nmenv.state.nm.us/dwb/dwbtop.html)

## The Safe Drinking Water Act . . .

*. . . helping to improve the quality of life at White Sands*

The purpose of the Safe Drinking Water Act (SDWA) is to ensure that water supply systems meet the national standards for the protection of public health. The national standards set forth by the Environmental Protection Agency (EPA) limit the amount of certain contaminants in drinking water. All drinking water can reasonably be expected to contain small amounts of contaminants. However, the presence of small amounts of contaminants does not necessarily indicate that the water poses a health risk.

## PROTECTING OUR WATER SUPPLY

There are several things that you as an individual can do to help protect our water supply. The first is to eliminate hazardous chemicals that might eventually find their way into our water supply. Don't dispose of insecticides, cleaners, solvents, or other such chemicals by pouring them out on the ground or down the drain. These chemicals should be taken to the HAZMIN Center, Building 1870, for proper disposal.

Another way you can help to protect the water supply is through the proper application of fertilizer to lawns. Use only minimum recommended amounts. With excessive applications some components from fertilizers can be leached downward with irrigation water applied to the lawns. If overused, these chemicals will eventually pollute our drinking water.

## WATER CONSERVATION IS EVERYONE'S RESPONSIBILITY

Water conservation is a very necessary part of our lives. There are really two parts to this issue, an economic issue, and ensuring that we have an adequate supply for the future. We use large electric motors to power the pumps that deliver water to our homes and offices. We must pay that electric bill. The second is the issue of good stewardship and wise use of our natural resources. Water is a precious natural resource that we all need to conserve. Lowering water use extends the life of this limited resource and reduces operating costs for the present and the future. When you water your lawn, please do so before 10:00am or after 6:00pm to minimize the evaporative waste of water.

### Source water assessment and its availability. . .

A Source Water Assessment will be performed by the State to determine our water system's susceptibility to contaminants. When the assessment is completed and becomes available, we will make it available to users.

### Notice to Reader:

In 1998, the EPA published a rule requiring every community supplying water to customers to issue a report card on the quality of the water. This is the fifth report we have issued and covers the Calendar Year 2002. This report shows that the water provided by our water supply system meets or exceeds requirements.

### Note to users of infrequently used facilities:

Some of our facilities have low and infrequent water use. To ensure that the drinking water in these low use facilities maintains proper chlorination, allow fixtures to flow for at least 30 minutes before using. If you require assistance about infrequently used facilities, please call the Directorate of Installation Support, Water and Wastewater Section at 678-1917.

## TERMS AND DEFINITIONS

AL	Action Level - the concentration of a contaminant which triggers treatment or other requirement which a water system must follow
CDC	Center for Disease Control
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
MCL	Maximum Contaminant Level - the highest amount of a contaminant that is allowed in drinking water
MCLG	Maximum Contaminant Level Goal - the level of a contaminant in drinking water below which there is no known or expected risk to health
pCi/l	picocuries per liter - a measure of radioactivity
ppm	parts per million or milligrams per liter (mg/l)
ppb	parts per billion or micrograms per liter (µg/l)
SDWA	Safe Drinking Water Act
TDS	Total Dissolved Solids
TT	Treatment Technique - a required process intended to reduce the level of a contaminant in drinking water



# QUESTIONS ABOUT DRINKING WATER

## Is my water safe?

Our tap water meets all EPA and State drinking water health standards. We vigilantly safeguard our water supply and once again we are proud to report that Main Post produces drinking water that meets or exceeds requirements.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## Where does my water come from?

Potable water produced by our Main Post system is comprised entirely of groundwater. No surface water enters the drinking water system. Water is pumped from an underground aquifer located in a geologic feature known as the Upper Bolson Deposits. This aquifer is recharged mainly with downward percolation of rainwater through coarse, unconsolidated deposits along the eastern flank of the Organ Mountains. Groundwater in the vicinity of Main Post is of sufficient quality (less than 500 milligrams per liter [mg/l] or parts per million [ppm] total dissolved solids [TDS]) for human consumption. This water is considered quite good for the region.

A system of 11 water wells is used to bring the groundwater to the surface where it is treated, blended, and distributed to various areas of the Main Post. Most of the wells are located in the vicinity of Main Post; either around the cantonment area or along Water Line Road extending north of the cantonment area. Two wells are located south of Main Post adjacent to Soledad Canyon on Fort Bliss property.

## Why are there contaminants in my drinking water?

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, may also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

# DRINKING WATER MONITORING

*The following constituents are monitored in drinking water in accordance with State and Federal regulations. The EPA and/or the State require WSMR to monitor for certain contaminants less than once per year because the concentrations of those contaminants do not change frequently.*

## Bacteriological monitoring. . .

Bacteriological monitoring is performed monthly by McAfee Health Clinic to test for the presence of coliform bacteria, including fecal coliform and E. coli. We collect at least 20 coliform samples per month. Our sample results indicate no bacteriological contamination found.

## Lead and copper monitoring. . .

Tap-water from the older housing units at the Military Family Housing area has been sampled for lead and copper on a regular basis. Our sample results for lead and copper have historically been below State and Federal permitted levels.

## Chemical Monitoring. . .

We meet State and Federal permitted levels for the following chemicals.

### Volatile Organic Chemicals (VOC)

The State requires the analysis of 21 regulated and 18 unregulated VOCs. VOCs are sampled every three years. The most recent sampling event in which VOCs were analyzed was during Calendar Year 2002 and no VOCs were detected. To comply with regulations, VOCs will be sampled and analyzed again during Calendar Year 2005.

### Synthetic Organic Chemicals (SOC)

The State requires the analysis of 30 regulated and 9 unregulated SOC's. SOC's are sampled every three years. The most recent sampling event in which SOC's were analyzed was during Calendar Year 2002 and no SOC's were detected. To comply with regulations, SOC's will be sampled and analyzed again during Calendar Year 2005.

### Inorganic Chemicals (IOC)

IOCs include heavy metals, fluoride, cyanide, and nitrate. With the exception of nitrate, IOCs are sampled every three years. Nitrate is sampled annually. The most recent sampling event in which all IOCs, with the exception of lead and copper, were analyzed was during Calendar Year 2002. Barium, chromium, fluoride, nickel, nitrate, and selenium were detected below their maxium contaminant levels during 2002. To comply with regulations, all IOCs will be sampled and analyzed again during Calendar Year 2005.

### Radiological Contaminants (RAD)

RADs, including gross alpha and gross beta, are sampled every four years. The most recent sampling event in which RADs were analyzed was during Calendar Year 2002. Gross alpha and beta were detected below their maximum contaminant levels during 2002. To comply with regulations, RADs will be sampled and analyzed again during Calendar Year 2006.

## Quarterly Nitrate Monitoring. . .

Two of our supply wells have nitrate concentrations which are higher than the secondary MCL of 5ppm. We have developed a program that blends water from all of our eleven supply wells to ensure that water supplied to our community is in compliance with the SDWA. We collect samples and analyze for nitrate on a quarterly basis at the water treatment plant to ensure the compliance of our blended water. Quarterly results from calendar year 2002 show our drinking water meets or exceeds compliance requirements. Nitrate concentration in our blended water is consistently below 5ppm.

# DID YOU KNOW?

◆ We use a central water treatment plant that includes sand filters, fluoridation, and chlorination prior to water entering the distribution network. The water is chlorinated to prevent the occurrence of coliform bacteria. Fluoride is added to water served to the residential areas to help prevent tooth decay.

◆ Drinking water may reasonably be expected to contain at least small amounts of some contaminants. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

◆ Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. Nitrate levels in our water are consistently below levels of regulatory concern.

◆ In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Additionally, the FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

# WATER QUALITY DATA TABLE

The table below lists all of the drinking water contaminants that were detected in our drinking water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. During calendar year 2002, we conducted IOC, VOC, SOC, RAD, and bacteriological monitoring. Results presented for lead and copper are from the Calendar Year 2000 annual compliance sampling and represent the most recent data available.

TABLE EXPLANATION	
1 - Analytical results from Calendar Year 2002.	
2 - Analytical results from Calendar Year 2000.	
* EPA considers 50 pCi/l to be the level of concern for beta particles.	
NE	Not Established.
ppb	parts per billion or micro-grams per liter (µg/l).
ppm	parts per million or milligrams per liter (mg/l).
pCi/l	picocuries per liter.
MCL	Maximum Contaminant Level.
MCLG	Maximum Contaminant Level Goal.

Inorganic Chemicals (units)	MCLG	MCL	Main Post	Typical Source
Barium (ppb) <sup>1</sup>	2000	2000	69	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.
Chromium (ppb) <sup>1</sup>	100	100	13	Discharge from steel and pulp mills, erosion of natural deposits.
Fluoride (ppm) <sup>1</sup>	4	4	0.4	Erosion of natural deposits, water additive for prevention of tooth decay, discharge from fertilizer and aluminum factories.
Nickel (ppb) <sup>1</sup>	100	100	2.7	Erosion of natural deposits, leaching.
Nitrate (ppm) <sup>1</sup>	10	10	3.2	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Selenium (ppb) <sup>1</sup>	50	50	3.4	Discharge from mines, erosion of natural deposits.
Lead and Copper (units)	MCLG	Action Level	Main Post	Typical Source
Lead (ppb) <sup>2</sup>	0	15	4.5	Corrosion of household plumbing systems, erosion of natural deposits.
Copper (ppm) <sup>2</sup>	1.3	1.3	0.265	Corrosion of household plumbing systems, erosion of natural deposits.
Radiological Contaminants (units)	MCLG	MCL	Main Post	Typical Source
Gross Alpha (pCi/l) <sup>1</sup>	NE	15	3.7±2.5	Erosion of natural deposits.
Gross Beta (pCi/l) <sup>1</sup>	NE	50*	3.5±2.9	Decay of natural and man made deposits.